



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/679,341 | 10/07/2003 | Chiaki Kubota | 243767US90X | 2655 |

30671 7590 10/10/2006

DITTHAVONG & MORI, P.C.
10507 BRADDOCK ROAD
SUITE A
FAIRFAX, VA 22032

| |
|----------|
| EXAMINER |
|----------|

COZART, JERMIE E

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3726

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/679,341 | Applicant(s) KUBOTA, CHIAKI | |
| | Examiner Jermie Cozart | Art Unit 3726 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 7-13 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 and 13 is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/13/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities: In **claim 5, line 5**, “performing” is objected to because it is the incorrect word used, therefore it is suggested to change “performing” to - -pre-forming- -. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Oka et al. (US 2001/0006000 A1).

Regarding **claim 1**, Oka discloses forging a hollow rack bar from a blank pipe (3) made of metal, comprising (a) subjecting the blank pipe (3) to a plastic deformation process (paragraph [0014]) for an adjustment of an inner and outer diameter of the blank pipe along an entire periphery of the blank pipe [as shown in Fig1., the inner and outer diameter of the blank pipe contained within split dies (5, 6) is slightly reduced]; (b) subjecting a predetermined outer part of the blank pipe (3) to a flattening process (paragraph [0015], lines 14-21) to substantially flatten the predetermined outer part; (c) holding the blank pipe (3) after the plastic deformation by a die (5, 6, 11) having a toothed portion (not labeled, Fig. 4) so that the toothed portion is contacted with the

Art Unit: 3726

predetermined outer part of the blank pipe (paragraph [0016]), and (d) inserting, under a pressure, a mandrel (12) into the blank pipe (3) held by the die (5, 6, 11) for causing the metal to be flown toward the toothed portion, thereby forming on the predetermined outer part of the blank pipe another toothed portion having a shape corresponding to a shape of the toothed portion of the die. *See paragraphs [0014] – [0019], and figures 1-5 and 7 for further clarification.*

Regarding **claim 5**, Oka discloses for forging a hollow rack bar from a metal blank pipe (3), wherein the blank pipe (3) is, from its outer side, held by a rack forming die (5, 6, 11) so that the blank pipe is subjected to a plastic deformation process (paragraph [0014]) for obtaining substantially flattened part (paragraph [0015], lines 14-21), and a mandrel (12) being inserted to the blank pipe (3) under a pressure, thereby forming a hollow rack bar having shape corresponding to a toothed portion of the rack forming die, a pre-forming process prior to the forging of the hollow rack bar, comprising the blank pipe being subjected to a preliminary plastic deformation process (paragraph [0015]) for obtaining an adjustment of both of an inner diameter and outer diameter of the blank pipe along an entire periphery of the blank pipe [as shown in Fig1., the inner and outer diameter of the blank pipe contained within split dies (5, 6) is slightly reduced]. *See paragraphs [0014] – [0019], and figures 1-5 and 7 for further clarification.*

Allowable Subject Matter

4. Claim 3 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 4 and 13 are allowed.

Response to Arguments

6. Applicant's arguments filed 7/13/06 have been fully considered but they are not persuasive.

Applicant argues that Oka fails to disclose subjecting the blank pipe to a plastic deformation process for an adjustment of an inner diameter and an outer diameter of the blank pipe along an entire periphery of the blank pipe.

In response, the Examiner maintains that Oka does disclose subjecting the blank pipe to a plastic deformation process (paragraph [0015], lines 21-24) for an adjustment of an inner diameter and an outer diameter of the blank pipe along an entire periphery of the blank pipe [as shown in Fig1., the inner and outer diameter of the blank pipe contained within split dies (5, 6) is slightly reduced].

7. Applicant's arguments, see pages 18-19, filed 7/13/06, with respect to the rejection of claims 3 and 4 in view of Oka have been fully considered and are persuasive. The rejection of claims 3 and 4 has been withdrawn.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 3726

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermie Cozart whose telephone number is 571-272-4528. The examiner can normally be reached on Monday-Thursday, 7:30 am - 6:00 pm.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JERMIE E. COZART
PRIMARY EXAMINER

September 28, 2006